

Position Description - Final

PD #:  
Sequence #:

Replaces PD #:

IT Specialist (NETWORK)

GS-2210-12

Installation:

Major Command:  
Region:

Citation 1: OPM, JFPCS Administrative Work in the Information Technology Group, GS-2200, dtd. May 2001 (Series Coverage, GS-2210)

PD Library PD:  
COREDOC PD:

Classified By:  
Classified Date:

FLSA:  
Career Program:  
Functional Code:  
Competitive Area:  
Competitive Level:

Drug Test Required:  
Financial Disclosure Required:  
Requires Access to Firearms:  
Position Sensitivity:  
Emergency Essential:

CIPMS PD:  
Acquisition Position:  
Interdisciplinary:  
Target Grade/FPL:  
Career Ladder PD:

PD Status:

MAJOR DUTIES

Summary: Serves as the Technical Expert within the District responsible for technical planning, analyzing, design, development, testing, configuration, integration, installation, implementation, quality assurance, maintenance, and management of network systems used for the transmission of information in voice, data and/or video. Work requires analyzing and defining network requirements, its architecture and infrastructure; configuring and optimizing network servers, hubs, bridges, routers, and switches; analyzing network workload and monitoring its capacity and performance; diagnosing and resolving network problems and developing backup and recovery procedures; installing, testing, maintaining and upgrading network operating systems software; and ensuring rigorous application of information security/assurance policies, principles, and practices in delivery of network services. In this capacity, performs the following duties:

1. Plans, analyzes, coordinates and accomplishes studies to identify and determine District network administrative and technical requirements and specifications, equipment configuration and facilities necessary to develop, modify, and implement network system and service which

effectively supports the District. Takes action to design, develop, implement, monitor, and maintain network systems/network activities/services to support District customer needs. Continuously coordinates studies and plans with District managers as well as administrative and technical personnel at all levels. Develops strategies to accommodate managers' needs, prepares drafts for their review by the using organization (s), and incorporates their review comments and concerns. Prepares study summaries for comparison of alternatives pertinent to the economic justification of costs, time, and equipment usage, and generates complex queries and reports. Develops recommendations concerning major project ramifications and to offset adverse impacts. Develops work plans, program logic, special instructions, and detailed flow charts covering processes covered and network services needs.

2. Develops/implements configuration management plans for complex local area networks (LANs) and wide area networks (WANs) and creates network maps for establishing/maintaining the District's network architecture, infrastructure, topology, protocols, connectivity between remote sites that support the District's business requirements.

a. Evaluates network software, hardware, and communications link, specification and installation. Analyzes, assesses and interprets the LAN/WAN user and administrator requirements for software to be used in the foreseeable future. Selects special multi-user software that meets LAN/WAN needs. Analyzes special hardware such as microcomputers, minicomputers, mainframe and terminal connections to the LAN/WAN/ network communications equipment.

b. Administers the operating LAN/WAN environment. Analyzes, assesses, approves and provides for user access to the LAN/WAN via the addition of nodes or via reorganizing existing nodes. Identifies and assesses network performance for hardware/software utilization. Fine-tunes the system, hardware, software, etc., to increase systems performance. Ensures appropriate system hardware maintenance, system file backup, system mass storage utilization, and system hardware, software, and data security. Develops programs for user interaction with the LAN/WAN. Reviews and approves development of shared databases and shared application systems developed for implementation via the LAN/WAN. Monitors application database and data file utilization by LAN/WAN end users via system utilities to ensure appropriate use of the District's information resources. Initiates corrective actions to resolve noncompliance issues. Develops documentation (written or automated) to provide LAN/WAN users with information necessary for LAN/WAN access and use, software availability and use, shared information availability and use. Develops and provides training programs on the use of LAN/WAN facilities. Plans for and installs original or new releases of existing software for network management purposes. Ensures installation plan includes provision for software testing, user training, application revision, database/data file reorganization and documentation. Plans for and installs hardware addition and/or upgrades. Ensures installation plan includes provision for hardware testing, user training, and documentation. Analyzes and resolves system hardware/software failures. Develops LAN/WAN standards and procedures including recommended network applications, general purpose software, and generic LAN/WAN attributes and capabilities. Implement security controls for the LAN/WAN.

3. Coordinates with specialists and managers at higher U.S. Army Corps of Engineers (USACE) level to obtain information to interface with systems at those levels to facilitate the acquisition and exchange of network technology. Serves as the District representative at District and Division meetings and seminars designed to arrive at solutions to mutual network problems encountered and to provide information concerning state-of-the-art techniques, software, and hardware.

4. Develops local District guidelines, standard operating procedures, bulletins and flyers concerning the operation/use of District IT system/network systems, services, and activities. Frequently analyzes problematic provisions or guidance governing standard operating systems and provides assistance and advisory services to any and all District users concerning the resolution of problem areas and the policies, regulations, and provisions of systems. Provides interpretations of higher authority regulations and guidance concerning IT system/network activities/service and coordinates with higher level USACE levels concerning the resolution of problem areas encountered.

5. Assigns network studies or portions of studies and program development to lower grade specialist and/or analysts hired under contract. Technically reviews completed work projects and provides technical assistance and guidance as required. May be required to manage contracts with private computer firms concerning the studies. In this capacity, prepares scopes of work and cost estimates for the work to be contracted; ensures that the contractors' progress complies with contract terms; certifies work accomplishment; reviews and approves requests for payments; ensures compliance with the terms and provisions of contracts and compliance with specifications; recommends approval or disapproval of completed contractor work; and takes necessary action to resolve problematic issues. Within the District's IT policy and planning function, incumbent accomplishes technical, analytical, and advisory functions pertinent to the development of local policies, plans, and procedures and ensures that the District's IT program is in compliance with higher authority policies and guidelines.

Performs other duties as assigned.

FACTOR 1. Knowledge Required by the Position

FL 1-7

1250 Points

Knowledge of and skill in applying network systems design, development testing, installation, operations, management and maintenance concepts, methods and procedures; the District's network architecture, topology, protocol and remote access technology, configuration management and LAN/WAN concepts, methods and practices sufficient to provide network service that supports the District's business requirements; to plan, design, develop, and integrate network systems with existing and/or planned network infrastructure; establish connectivity between remote sites; create network maps; configure hubs, switches and routers; analyze network traffic patterns and install network hardware/software fixes and upgrades.

Knowledge of information technology resources and infrastructure including automated systems, equipment and hardware and software, system technology, provisions and requirements of a variety of standardized administrative and technical systems to serve as a technical specialist within the District concerning the application, implementation, and maintenance of the District's IT system, services/activities, etc.

Knowledge of the organizational structures, functions, work processes/programs of District organizations, as well as a high degree of analytical ability to gather, assemble, and analyze facts, draw conclusions, and devise solutions to problems which will increase the effectiveness of the District business process. Knowledge of cost benefit analysis to analyze current IT market trends and recommend the most cost-effective for local application. Knowledge of and experience in the use of oral and written communication methods and techniques to accomplish continuing coordination with District customers.

**FACTOR 2. Supervisory Controls**

**FL 2-4**

**450 Points**

The supervisor assigns functional responsibilities, outlines overall objectives to be achieved, and the resources available for use. Assignments may come directly from the user/customer or from the supervisor. The incumbent has continuing responsibility for assignments pertaining to the District network activities. Consults with the supervisor on matters pertaining to time frames, scopes of assignments, stages in the study or application process and possible approaches on controversial or problematic situations. Independently applies and interprets guidelines and regulations and plans, designs, and organizes projects associated with assignments. There is a continuing requirement for coordination (users and other impacted IT specialists) and the incumbent independently plans and carries out the necessary coordination including that involving lower-level IT specialists and/or efforts of contractually employed persons. The incumbent represents the highest level of expertise within the District concerning network matters and independently provides advice and guidance within the District and resolves problem matters. Completed work is typically accepted without technical change but is reviewed for effectiveness in meeting user requirements, conformance with policy, accomplishment within acceptable time frames, and customer satisfaction.

**FACTOR 3. Guidelines**

**FL 3-4**

**450 Points**

Guidelines include agency regulations, manuals, and policies which provide overall goals and define limitations and overall objectives; USACE regulations, policies and procedures concerning network activities and all automated systems used in USACE; District regulations and guidelines; and a variety of manufacturers' manuals and handbooks pertaining to the wide range of hardware and software in use in the District. Guides are broad and frequently require interpretations and deviation from previously used methods. On a regular basis the incumbent must use ingenuity in adapting existing methods and developing new methods and approaches to resolve user problems and requirements within the provisions of policies and regulations. The incumbent must interpret higher authority guidelines, considering the intricacies and problems encountered in accommodating District information needs, and develop local guides, SOP's,

bulletins and fact sheets for distribution and use within the District in performing network operation and maintenance. The incumbent must apply judgment to anticipate problems, research trends in state-of-the-art technology, and develop special coding to satisfy requirements.

FACTOR 4. Complexity

FL 4-5

325 Points

Assignments involve the accomplishment of complete system studies requiring in-depth analysis of a myriad of complex network factors and many different and unrelated processes and methods. Additionally, work includes the responsibility for serving as the District point of contact concerning network needs and problem resolution. Work is made complex by continuing changes in District business requirements and the rapidly changing IT environment. The incumbent must remain updated on changing network technology and continuously evaluate changing future organizational information needs. The incumbent must develop new network strategies, methods and techniques for accommodation of customer needs and for application to resolve incompatibilities between organizational needs and ways of doing business and automated system requirements. Projects require the consideration of numerous USACE-wide standard systems and hardware platforms requiring the use of a variety of techniques and methods to design and evaluate alternatives to best fit District requirements.

FACTOR 5. Scope and Effect

FL 5-4

225 Points

The work involves serving as the technical expert within the District concerning network needs, plans, situations and problems. The work involves establishing criteria, formulating projects, troubleshooting server hardware/software and reviewing server loads and recommending load balancing and verifying system backup and restoration, developing specifications for new or modified systems including hardware and software, refining services and consulting with program specialists in developing new services and/or enhancing existing services that expand current information dissemination capabilities. The work also involves planning, coordinating, and conducting/directing in-depth studies of District network needs, services/activities, and developing strategies and plans to satisfy those needs leading to the implementation of new/enhanced systems/sites, etc.

The work facilitates the efficient delivery of program information and exchange of information between clients and organizations (e.g., within the District, with other districts, USACE, other agencies, and the private sector).

FACTOR 6. Personal Contacts

Fl 6-3 & 7-C

180 Points

FACTOR 7. Purpose of Contacts

Contacts are with IM Managers and Specialists within the employing District organizations; technical specialists in similar specialties in other Districts; managers and technical experts/specialists in the Division HQ offices; with HQ USACE specialists and functional proponents of major Corps corporate systems, and IT experts; and occasional contacts with IT

experts at the DA level and other Federal agencies. Contacts regularly include meeting with contractors, equipment manufacturer's representatives, providers of services (e.g., software) related to technological developments applicable to the project, and members of USACE technical committees. Contacts typically take place in moderately unstructured settings. Level 3.

The purpose of the contact is to plan, coordinate, or advise on work efforts, to exchange information, determine network requirements, coordinate study work processes and problem resolution matters, plan study processes, and provide progress reports. Additionally, contacts are to influence others to utilize methods and procedures developed or sell them on the use of system techniques, planned action, or resolve inequities and incompatible situations involved with the system(s). Contacts with HQ USACE are to coordinate the use of standard USACE-wide systems and obtain and provide information concerning the use of the systems. Level C

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| FACTOR 8. Physical Demands | FL 8-1 | 5 Points |
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The work is primarily sedentary, with slight physical effort being required.

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| FACTOR 9. Work Environment | FL 9-1 | 5 Points |
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Work is performed in an office setting with the normal risks involved and standard safety precautions being taken.

Total Points: 2890 (GS-12)  
GS-12 range is 2755 - 3150.